

**WINNER INTERNATIONAL ROYALTY  
CORPORATION, Plaintiff-Appellee,**

**v.**

**Ching-Rong WANG, Defendant-Appellant.**

**No. 98-1553.**

United States Court of Appeals,  
Federal Circuit.

Jan. 27, 2000.

Rehearing and Rehearing En Banc Denied March 6,  
2000.

Owner of patent and patent application claiming automobile anti-theft device brought action challenging decision of the Board of Patent Appeals and Interferences, in interference proceeding, declaring patent and application claims invalid as obvious. Competitor's motion to transfer action to California was denied, 1998 WL 268279. Following bench trial, the United States District Court for the District of Columbia, Stanley Sporkin, J., 11 F.Supp.2d 18, overturned Board's decision, and competitor appealed. The Court of Appeals, Michel, Circuit Judge, held that: (1) owner's submission to district court of live testimony on all matters before the Board required court to conduct trial de novo; (2) patent was not invalid as obvious; (3) allowing allegedly late-disclosed witnesses to testify was not abuse of discretion; (4) evidence regarding nexus between commercial success of claimed invention and patentably distinct feature of invention was admissible; and (5) competitor was not entitled to transfer.

Affirmed.

**[1] FEDERAL COURTS ⇨776**  
170Bk776

On appeal following a bench trial, Court of Appeals reviews the district court's factual findings for clear error and its conclusions of law de novo.

**[1] FEDERAL COURTS ⇨850.1**  
170Bk850.1

On appeal following a bench trial, Court of Appeals reviews the district court's factual findings for clear error and its conclusions of law de novo.

**[2] PATENTS ⇨114.16**  
291k114.16

Patent owner's submission to district court of live testimony on all matters before the Board of Patent Appeals and Interferences, in owner's action for review of interference decision, required district court to conduct trial de novo, based both on Board record and the district court evidence. 35 U.S.C.A. § 146.

**[3] PATENTS ⇨114.16**  
291k114.16

The admission of live testimony on all matters before the Board of Patent Appeals and Interferences, in a district court action for review of a decision in an interference proceeding, makes a factfinder of the district court and requires a de novo trial; thus, although the live testimony before the district court might be the same or similar to testimony before the Board in the form of affidavits and deposition transcripts, a district court should still make de novo factual findings, while treating the record before the Board when offered by a party as if it was originally taken and produced in the district court. 35 U.S.C.A. § 146.

**[3] PATENTS ⇨114.22**  
291k114.22

The admission of live testimony on all matters before the Board of Patent Appeals and Interferences, in a district court action for review of a decision in an interference proceeding, makes a factfinder of the district court and requires a de novo trial; thus, although the live testimony before the district court might be the same or similar to testimony before the Board in the form of affidavits and deposition transcripts, a district court should still make de novo factual findings, while treating the record before the Board when offered by a party as if it was originally taken and produced in the district court. 35 U.S.C.A. § 146.

**[4] PATENTS ⇨16(1)**  
291k16(1)

Obviousness of a patent claim is a question of law based on underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the prior art and the claimed invention; and (4) extent of any objective indicia of non-obviousness. 35 U.S.C.A. § 103.

**[4] PATENTS ⇨16(2)**

291k16(2)

Obviousness of a patent claim is a question of law based on underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the prior art and the claimed invention; and (4) extent of any objective indicia of non-obviousness. 35 U.S.C.A. § 103.

**[4] PATENTS ⇨314(5)**

291k314(5)

Obviousness of a patent claim is a question of law based on underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the prior art and the claimed invention; and (4) extent of any objective indicia of non-obviousness. 35 U.S.C.A. § 103.

**[5] PATENTS ⇨114.25**

291k114.25

The ultimate determination of obviousness of a patent claim by a district court is reviewed by the Court of Appeals de novo while the underlying factual inquiries are reviewed for clear error, regardless of whether Court is reviewing judgment in an infringement suit or judgment in an action for review of an interference proceeding. 35 U.S.C.A. § 103.

**[5] PATENTS ⇨324.55(4)**

291k324.55(4)

The ultimate determination of obviousness of a patent claim by a district court is reviewed by the Court of Appeals de novo while the underlying factual inquiries are reviewed for clear error, regardless of whether Court is reviewing judgment in an infringement suit or judgment in an action for review of an interference proceeding. 35 U.S.C.A. § 103.

**[6] PATENTS ⇨26(1)**

291k26(1)

When determination of patent's obviousness is based on multiple prior art references, there must be a showing of some teaching, suggestion, or reason to combine the references. 35 U.S.C.A. § 103.

**[7] PATENTS ⇨314(5)**

291k314(5)

Whether motivation to combine prior art references

was shown by party asserting that patent was obvious is a question of fact. 35 U.S.C.A. § 103.

**[8] PATENTS ⇨26(1)**

291k26(1)

Evidence of a suggestion, teaching, or motivation to combine prior art references in manner rendering patent obvious may flow, inter alia, from the references themselves, the knowledge of one of ordinary skill in the art, or from the nature of the problem to be solved. 35 U.S.C.A. § 103.

**[9] PATENTS ⇨36(1)**

291k36(1)

Although a prior art reference need not expressly teach that the disclosure contained therein should be combined with another, to render a patent invalid as obvious, the showing of combinability, in whatever form, must nevertheless be clear and particular. 35 U.S.C.A. § 103.

**[10] PATENTS ⇨36(3)**

291k36(3)

Competitor failed to show motivation or suggestion to combine prior art references disclosing claimed automobile anti-theft device and its feature of self-locking ratcheting mechanism, as required to show prima facie case of obviousness, since one of ordinary skill in the art would not have reasonably elected trading benefit of security for that of convenience, which would result from use of ratcheting mechanism, and reference disclosing invention's other features taught away from the ratcheting mechanism. 35 U.S.C.A. § 103.

**[11] PATENTS ⇨314(5)**

291k314(5)

What a prior art reference teaches and whether it teaches toward or away from a claimed invention are questions of fact.

**[12] PATENTS ⇨16(3)**

291k16(3)

A prior art reference will "teach away" if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the patent applicant.

See publication Words and Phrases for other judicial constructions and definitions.

**[13] PATENTS ⇨36.2(5)**

291k36.2(5)

Where party challenging patent as obvious failed to establish a prima facie case of obviousness, patentee was not required to establish objective indicia of non-obviousness, such as commercial success. 35 U.S.C.A. § 103.

**[14] PATENTS ⇨36.2(9)**

291k36.2(9)

Even if competitor established prima facie proof that patent for automobile anti-theft device was obvious, commercial success of invention overcame other obviousness factors and patent was thus not invalid. 35 U.S.C.A. § 103.

**[15] FEDERAL COURTS ⇨823**

170Bk823

A district court's decision to admit or exclude evidence at trial is reviewed for abuse of discretion.

**[16] FEDERAL COURTS ⇨921**

170Bk921

District court could not be deemed to have abused its discretion in allowing allegedly late-disclosed witnesses to testify, absent identification of which witnesses should not have been permitted to testify.

**[17] PATENTS ⇨36.2(1)**

291k36.2(1)

Evidence regarding nexus between commercial success of claimed invention and patentably distinct feature of invention was relevant, and indeed necessary, to establish commercial success, and evidence was thus admissible to show commercial success as factor overcoming prima facie case that invention was obvious, in action for review of decision of Board of Patent Appeals and Interferences declaring patent invalid. 35 U.S.C.A. § 103.

**[18] COURTS ⇨96(7)**

106k96(7)

District court's denial of motion to transfer action for the convenience of parties and witnesses, in the interest of justice, was procedural matter, so review of that issue by Court of Appeals for the Federal Circuit was governed by law of the district court's regional circuit. 28 U.S.C.A. § 1404(a).

**[19] FEDERAL COURTS ⇨110**

170Bk110

Competitor was not entitled, in the interest of justice, to transfer of patent owner's action for

review of administrative interference decision to district in which related actions had been stayed pending outcome of interference and instant action, as it was unclear that other forum would be more convenient, and action could likely be resolved more quickly if it was not transferred. 28 U.S.C.A. § 1404(a).

**PATENTS ⇨328(2)**

291k328(2)

3,462,982, 4,738,127. Cited as prior art.

**PATENTS ⇨328(2)**

291k328(2)

4,887,443. Cited.

**PATENTS ⇨328(2)**

291k328(2)

4,935,047. Valid.

\*1342 Kenneth A. Lapatine, Camhy Karlinsky & Stein, of New York, New York, argued for plaintiff-appellee. Of counsel on the brief was Charles L. Gholz, Oblon, Spivak, McClelland, Maier & Neustadt, P.C.

Joseph A. Yanny, Yanny, Grieco & Osher, of Los Angeles, California, argued for defendant-appellant. With him on the brief were Mary L. Grieco, and Michael A. DiNardo. Of counsel on the brief were Charles R. Wolfe, Jr., and Richard E. Fitcher, Bacon & Thomas, of Alexandria, Virginia.

Before MICHEL, RADER, and GAJARSA, Circuit Judges.

MICHEL, Circuit Judge.

Ching-Rong Wang ("Wang") appeals from the judgment of the United States District Court for the District of Columbia, overturning the decision of the United States Patent and Trademark Office Board of Patent Appeals and Interferences (the "Board") in an interference, and holding that the inventions of claims 2 and 4 of U.S. Patent No. 4,935,047 ("the '047 patent") and claims 9-11 of U.S. Patent App. No. 07/478,411 ("the '411 application") would not have been obvious in light of the cited prior art. See *Winner Int'l Royalty Corp. v. Wang*, 11 F.Supp.2d 18, 48 USPQ2d 1139 (D.D.C. June 12, 1998). The '047 patent, issued to Jinn Wu ("Wu"), and the '411 application are owned by Winner International Royalty Corp. ("Winner"). The district court had

jurisdiction pursuant to 35 U.S.C. § 146 (1994) because Wu filed suit there after an adverse ruling by the Board in an interference between himself and Wang. Winner, as owner of Wu's patent, superseded Wu as plaintiff. The Board held the Wu patent and application claims invalid as obvious. See 35 U.S.C. § 103 (1994). Other litigation (including suit against Wang), in which Winner alleges infringement of its '047 patent and asserts several related claims, has been stayed in the Central District of California pending the outcome of this appeal. The district court first denied Wang's motion to transfer this action to the District Court for the Central District of California. See *Winner Int'l Royalty Corp. v. Wang*, 45 USPQ2d 1864, 1998 WL 268279 (D.D.C. Jan.20, 1998). Then it conducted a 7 day bench trial. On appeal, Wang challenges (1) the denial of the transfer; (2) rulings as to the admission of evidence despite its similarity to that before the Board; and (3) the holding of non-obviousness that revived the '047 patent. This case was submitted for our decision following oral argument on August 2, 1999. Because the district court did not clearly err in any of its factual findings relating to obviousness, did not err in its ultimate determination of non-obviousness, and did not abuse its discretion either in admitting the challenged documentary evidence and testimony or in refusing to transfer the case, we affirm.

### BACKGROUND

In addition to the '047 patent, Winner also owns U.S. Patent No. 4,738,127 ("Johnson"), the commercial embodiment of which is the original steering wheel anti-theft device known as "The Club." Wu, the principal in the Taiwanese manufacturer of the original Club, is named as the inventor in the '047 patent, commercial embodiments of which are known as "The Super Club," "The Ultra Club," and "The Club GL." The '047 patent discloses an automobile\*1342 anti-theft device that is mounted across the steering wheel and is locked in place by use of a self-locking ratcheting mechanism. Like all versions of the Club, when locked in place, the commercial embodiments of the '047 patent prevent theft by blocking the steering wheel from turning. The ratcheting mechanism is different from the dead-bolt used in Johnson and so the '047 patent may be thought of as an improvement over Johnson. While Johnson's dead-

bolt system is more secure, it is not as convenient as the ratcheting mechanism claimed in the '047 patent because a key is required to lock the Johnson device in place while the '047 patent discloses a device that locks itself without use of a key. [FN1]

FN1. In both devices a key is needed to unlock the device.

Wang also manufactures similar anti-theft devices in Taiwan and exports them to the U.S. where he sells them through his United States distributor. Wang's device is known commercially as "The Gorilla Grip." Wang filed a patent application directed to his Gorilla Grip device and was issued U.S. Patent No. 4,887,443 ("the '443 patent").

In 1990, Wu discovered that the device disclosed in Wang's '443 patent was very similar to the subject matter of his then-pending application, which later issued as the '047 patent, and decided to provoke an interference by filing a divisional application and submitting a claim identical to the broadest claim in the '443 patent. On August 8, 1991, an interference was declared, and a proceeding began to determine which party, Wu or Wang, had priority of invention. The claims of the '047 patent and an additional Wu application, the '411 application, were eventually added to the count in the interference.

During the interference proceeding, Wang filed a preliminary motion alleging that the interference count, and hence both parties' claims, was unpatentable as obvious in light of certain prior art under 35 U.S.C. § 103 (1994). Wang, apparently acknowledging that his claim to priority over Wu's '047 patent was questionable, ultimately conceded that his '443 patent was invalid and sought to prove that Wu's '047 patent was also invalid.

After a final hearing, the Board, in a split decision, held all affected claims invalid except for claims 1 and 3 of the '047 patent. Wu then filed both an appeal to this court pursuant to 35 U.S.C. § 141 (1994) and an action in the District Court for the District of Columbia pursuant to 35 U.S.C. § 146, while Wang filed a section 146 action in the District Court for the Central District of California. In Wu's section 141 appeal from the decision of the Board, this court determined that the section 146 suit would proceed pursuant to Wu's complaint in the District Court for the District of Columbia. See Wu

v. Wang, 129 F.3d 1237, 44 USPQ2d 1641 (Fed.Cir.1997). Because Wu filed his appeal first, and responded in timely fashion to Wang's notice of election by filing a section 146 action in the District Court for the District of Columbia, Wu's choice of forum governed. See *id.* at 1242-43, 44 USPQ2d at 1645-46. We then dismissed the section 141 appeal as superseded by the section 146 action. See *id.* at 1238, 44 USPQ2d at 1642.

After the first appeal to this court, Wang filed a motion in the district court to transfer the action to the Central District of California. The district court denied the motion. See *Winner*, 45 USPQ2d 1864. After a seven-day bench trial, the district court held that the inventions of claims 2 and 4 of the '047 patent would not have been obvious in light of the cited prior art. See *Winner*, 11 F.Supp.2d 18, 48 USPQ2d 1139. [FN2] At trial, Winner presented testimony on each of the four principal factual issues underlying an obviousness determination, as well as affidavits. Wang presented one expert witness to testify as to his opinion regarding obviousness and the underlying factual determinations. The record before the Board was also admitted into evidence before the district court.

FN2. The related claims in the '411 application were also found not unpatentable, but were not separately addressed by the district court and are not separately argued on appeal. Therefore, we do not address them separately either.

The focus of the trial was on four prior art references that Wang alleged, before the court as he had before the Board, rendered the invention of the '047 patent obvious. These references were Johnson (mentioned above), U.S. Patent No. 3,462,982 ("Moore"), Taiwan Patent App. No. 74,210,699 ("WuROC"), and French Patent App. No. 2,566,398 ("Grimaldi"). Winner also introduced evidence of the commercial success of its Super Club line of products. This evidence had not been presented to the Board.

Like the device disclosed in the '047 patent, the mechanism of Johnson immobilizes the steering wheel by the user inserting it within the steering wheel, telescoping its arms outward so that hooks on the end of the arms engage the steering wheel, and then locking the arms in place. As stated earlier, unlike the '047 patent, which discloses a self-locking ratcheting mechanism, Johnson uses a dead-bolt to

lock the device in place, which requires the user to turn a key after putting the device on the wheel. Moore discloses a steering wheel lock that unfolds into a "Y" shape and utilizes a self-locking ratcheting mechanism, which does not require a key. WuROC discloses a wheel and brake pedal locking device with a versatile locking core that can accommodate either a dead-bolt or a self-locking ratcheting mechanism, but it does not disclose either of these locking mechanisms. Grimaldi discloses a two-piece mechanism for locking a clutch or brake pedal to the floorboard or firewall of a car and its figures appear to show a rod and pawl mechanism that locks it into place.

The key issue tried was the presence or absence of sufficient proof of a motivation to combine the four prior art references. The Board had found that one skilled in the art (1) "would have considered Johnson's dead-bolt-type locking device to be disadvantageous compared to the Moore and WuROC devices to the extent that Johnson requires a key for setting in position and adjusting the device," and (2) "would have been motivated to make Johnson easier to use, albeit less secure, by replacing the dead-bolt mechanism" of Johnson with a suitable self-locking ratcheting mechanism. The district court found that these factual findings were "clearly erroneous" and found that adequate motivation to combine the references was not shown. See *Winner*, 11 F.Supp.2d at 23-24, 48 USPQ2d at 1143-44. The district court also found that Winner established commercial success resulting from the improvement claimed in the '047 patent, even though it held such a finding immaterial in light of Wang's failure to establish a *prima facie* case of obviousness. See *id.* Accordingly, the district court held that on this record the inventions of claims 2 and 4 of the '047 patent would not have been obvious and overturned the Board's decision as to those claims. See *id.* at 25, 48 USPQ2d at 1145.

Wang appeals, contending that the district court should have applied a substantial evidence standard of review on factual issues rather than, as it said it was doing, review for clear error. Wang asserts that the district court incorrectly concluded that the invention of the claims would not have been obvious, and abused its discretion in admitting the challenged documentary evidence and testimony as duplicative of evidence in the Board record and in denying Wang's motion to transfer the case to the

Central District of California. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(3)(C) (1994).

## DISCUSSION

### I.

#### STANDARD OF REVIEW

[1][2] We review the district court's factual findings for clear error and its \*1345 conclusions of law de novo, as with any bench trial. See *Gould v. Quigg*, 822 F.2d 1074, 1077, 3 USPQ2d 1302, 1303-04 (Fed.Cir.1987) (affirming district court's reversal of Board decision with respect to enablement). It is not as clear, however, what degree of deference inheres in the standard of review the district court was required to apply to the Board's decision. The parties agree that the district court was to reassess the Board's ultimate conclusion as to obviousness de novo, but they disagree over the degree of deference, if any, the district court was required to give to the Board's factual findings. Wang argues that under the Supreme Court's decision in *Dickinson v. Zurko*, 527 U.S. 150, 119 S.Ct. 1816, 144 L.Ed.2d 143 (1999), the district court was required to review the Board's factual findings only for substantial evidentiary support. In its decision, which issued before *Zurko* was decided, the district court applied the traditional clearly erroneous standard of review to the Board's findings of fact. [FN3] Winner argues first that the district court was entitled to conduct an entire trial de novo, and second, even if deference were required, that the district court properly reviewed the Board's factual findings for clear error because *Zurko* and the Administrative Procedure Act ("APA") standards of review do not apply as the Board proceeding is "subject to" a trial de novo in a district court.

FN3. That standard of review was correct under our case law at the time.

Wu brought this action pursuant to 35 U.S.C. § 146, which allows a party to an interference dissatisfied with an adverse decision of the Board to file a complaint in a district court. Unlike a direct appeal to this court pursuant to 35 U.S.C. § 141, the parties before the district court are not limited to the evidentiary record before the Board:

In such suits the record in the Patent and Trademark Office shall be admitted on motion of either party ... without prejudice to the right of the parties to take further testimony. The testimony

and exhibits of the record in the Patent and Trademark Office when admitted shall have the same effect as if originally taken and produced in the suit.

35 U.S.C. § 146 (emphasis added). Because the record before the district court may include the evidence before the Board as well as evidence that was not before the Board, we have often described the district court proceeding as "a hybrid of an appeal and a trial de novo." *Estee Lauder Inc. v. L'Oreal, S.A.*, 129 F.3d 588, 592, 44 USPQ2d 1610, 1612 (Fed.Cir.1997); see also *General Instrument Corp. v. Scientific-Atlanta, Inc.*, 995 F.2d 209, 212, 27 USPQ2d 1145, 1147 (Fed.Cir.1993) ("[A] party may proceed to a district court for a hybrid appeal/trial de novo proceeding in which the PTO record is admitted on motion of either party, but it may be supplemented by further testimony. 35 U.S.C. § 146."); *Case v. CPC Int'l, Inc.*, 730 F.2d 745, 752, 221 USPQ 196, 202 (Fed.Cir.1984) ("[A]n action under 35 U.S.C. § 146 has the hybrid nature of an appeal and a trial de novo."). We have so stated even though section 146 uses neither the term "de novo," nor "appeal." See *Conservolite, Inc. v. Widmayer*, 21 F.3d 1098, 1102, 30 USPQ2d 1626, 1629 (Fed.Cir.1994).

The issue before us is whether the scope of the evidence admitted by the district court was sufficient to require a complete trial de novo, or whether the district court was instead required to give deference to some or all of the Board's findings of fact. Although our precedent makes clear that a de novo trial is appropriate in some circumstances in actions under both section 146 and the parallel provisions in 35 U.S.C. § 145, it does not make clear exactly what those circumstances are. The statutory provisions themselves offer little guidance--section 146 only refers to "further testimony" which may be offered in the district court, while section 145 is completely silent about evidence. See 35 U.S.C. § 146; 35 U.S.C. § 145. In *Zurko*, the Supreme Court, in passing, noted the settled law that in a section 145 action a disappointed applicant may present evidence \*1346 that it did not present to the Board, and that the "presence of such new or different evidence makes a factfinder of the district judge." 119 S.Ct. at 1824 (emphasis added). Interpreting both sections, we have referred to the ability to present "new testimony" or "proffered testimony" or "additional evidence." *Conservolite*, 21 F.3d at 1102, 30 USPQ2d at 1629 ("new

testimony"); Case, 730 F.2d at 752, 221 USPQ at 202 (finding that section 146 "authorizes the district court to accept all proffered testimony on issues raised by the parties during the proceedings below or by the board's decision."); Gould, 822 F.2d at 1079, 3 USPQ2d at 1305 ("[A]dditional evidence is permitted in a civil action under section 145, allowing the district court to make de novo fact findings."); Fregeau v. Mossinghoff, 776 F.2d 1034, 1038, 227 USPQ 848, 851 (Fed.Cir.1985) (using "additional evidence" and "new evidence" interchangeably); cf. Newman v. Quigg, 877 F.2d 1575, 1579, 11 USPQ2d 1340, 1343 (Fed.Cir.1989) ("A district court action under 35 U.S.C. § 145 is a de novo determination of patentability. It is not limited to the record before the PTO."). It is not clear from these cases, however, when evidence is "new or different" or "additional" so that trial de novo is required.

Here, Winner introduced evidence on the issue of commercial success that was not before the Board, specifically a survey and a witness. Such documentary evidence and testimony are certainly "further testimony," as the Board had neither before it in any form. However, Winner also presented live testimony in the district court on each factual issue before the Board, namely the other three sets of underlying factual determinations typically at issue in an obviousness determination. See *Graham v. John Deere Co.*, 383 U.S. 1, 17- 18, 86 S.Ct. 684, 15 L.Ed.2d 545 (1966). Wang argues that this latter testimony was not adequate to trigger a de novo trial because it is the same or similar to testimony given by the same witnesses before the Board. We reject this argument.

In the context of a section 145 action, in which the Board has conducted an ex parte proceeding, we have noted that the admission of live testimony at trial requires the factfinder to make its own findings. See *Burlington Indus., Inc. v. Quigg*, 822 F.2d 1581, 1584, 3 USPQ2d 1436, 1439 (Fed.Cir.1987). The rationale is that the applicant was at least partly unable to present the live testimony in the ex parte proceeding before the Board. See *id.* In *Burlington Industries*, the Commissioner argued that "the district court cannot reach a different conclusion on the same evidence that was before the PTO." *Id.* (emphasis added). We rejected the Commissioner's argument. Although the import of the evidence before the Board and the district court might be the

same in many or all ways, the form in which it is presented is fundamentally different. As we noted in *Burlington Industries*:

In its evaluation of the evidence on which this conclusion was based, the district court had a powerful advantage over the patent examiner and the Board, an advantage characteristic of section 145 appeals, in that the court heard and saw witnesses, testifying under examination and cross-examination, and had the benefit of extensive discussion and argument.

*Id.* at 1582, 3 USPQ2d at 1437-38 (emphasis added). The fact that the district court heard live testimony, gave more weight to some witnesses than to others, and came to a different conclusion than that reached by the Board, was not improper:

This trial before the district court partook of the quality that is available only with the examination and cross-examination of live witnesses. ... If the evidence adduced before the district court led to a decision different from that reached by the PTO, that is not contrary to the legislative purpose of section 145 de novo review. Indeed, it is in fulfillment of that purpose.

*Id.* at 1584, 3 USPQ2d at 1439 (emphasis added). Thus, after a "full trial of the issues" the district court was free to come \*1347 to its own "independent conclusion," contrary to the argument by the Commissioner. *Id.*; see also *Gould*, 822 F.2d at 1079, 3 USPQ2d at 1305 ("[O]nce a full trial on the issue occurred ... the district court reached a distinct and more informed conclusion....").

In the context of a section 146 action such as the instant case, in which the Board has conducted an inter partes interference proceeding, the matter is less clear because more evidentiary opportunities are available to parties in an interference than to an applicant in an ex parte examination and appeal to the Board. See *In re Epstein*, 32 F.3d 1559, 1565-66, 31 USPQ2d 1817, 1821 (Fed.Cir.1994) (noting lack of rules of evidence and inability to cross-examine witnesses in an ex parte proceeding). In an interference, unlike an ex parte proceeding, the Federal Rules of Evidence apply. See 37 C.F.R. § 1.671(b) (1998). In addition, both sides can submit testimony, initially in the form of affidavits, unless the testimony must be compelled. See 37 C.F.R. § 1.672. A party may "cross-examine" an affiant through oral deposition. See 37 C.F.R. § 1.672(d). Discovery, at least against the

party opponent, is also available. See 37 C.F.R. § 1.687. However, although the parties "will be given an opportunity to appear before the Board to present oral argument at a final hearing," 37 C.F.R. § 1.654, at no point in the interference proceeding is a party allowed to present live testimony before the Board. The Board reviews testimony only in the form of affidavits and transcripts of depositions, and other facts in the form of responses to interrogatories and requests for admissions. See 37 C.F.R. §§ 1.653(a), 1.677(a). Thus, although the proceeding before the Board in an interference differs from that following an ex parte examination, the two proceedings are the same in at least one important respect--in no case is live testimony given before the Board, which would allow the Board to observe demeanor, to hear the witnesses rebut one another's testimony in response to questioning from the parties and the judges, and thus to determine credibility. As we have stated before, because the district court may observe witnesses under examination and cross-examination it can have a "powerful advantage" over the Board which can never receive testimony in such a manner. *Burlington Indus.*, 822 F.2d at 1582, 3 USPQ2d at 1437.

[3] We hold that the admission of live testimony on all matters before the Board in a section 146 action, as in this case, makes a factfinder of the district court and requires a de novo trial. [FN4] Thus, although the live testimony before the district court might be the same or similar to testimony before the Board in the form of affidavits and deposition transcripts, a district court should still make de novo factual findings, while treating the record before the Board when offered by a party "as if [it was] originally taken and produced" in the district court. 35 U.S.C. § 146. Accordingly, because Winner submitted live testimony on all matters before the Board, the entire district court proceeding should have been a trial de novo, based both on the Board record and the district court evidence. [FN5]

FN4. As this case involved further testimony relating to everything in issue before the Board, we express no opinion on whether testimony relating solely to some facts or issues results in other facts or issues being reviewed deferentially based solely on the fact findings of the Board. Indeed, we do not decide whether a given dispute could be parsed into discrete "issues" or facts so that such a determination could be made, or if it could, how a

court would draw the line between such facts or issues.

FN5. The trial court's failure to apply the de novo standard, if error, was harmless error, for surely the result would have been the same under non-deferential review.

Our holding comports with the notion that "[t]he credibility of the witnesses and the weight to be given to their testimony and the other evidence in the record ... is a matter for the trier of facts." *Gyromat Corp. v. Champion Spark Plug Co.*, 735 F.2d 549, 552, 222 USPQ 4, 6 (Fed.Cir.1984). Further, our holding also establishes \*1344 a clear rule that live testimony admitted on all matters that were before the Board triggers a de novo trial. If our holding were otherwise it might be difficult to administer. For example, if the test for determining whether de novo adjudication is appropriate were based on exactly what the witness said in the district court and whether it was truly "new or different" than what was disclosed in affidavits and deposition transcripts of the same or other witnesses before the Board, then the district court, and this court on appeal, would be required to search nearly line-by-line through the respective records as to each witness and issue to determine which standard applied. Aside from being difficult, such a test would provide scant guidance for a prospective litigant attempting to discern which standard would apply should it file a section 146 action.

## II. OBVIOUSNESS A.

[4][5] Obviousness is a question of law based on underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the prior art and the claimed invention; and (4) extent of any objective indicia of non-obviousness. See *Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH*, 139 F.3d 877, 881, 45 USPQ2d 1977, 1981 (Fed.Cir.1998). The ultimate determination of obviousness by a district court is reviewed by this court de novo while the underlying factual inquiries are reviewed for clear error. See *Weatherchem Corp. v. J.L. Clark, Inc.*, 163 F.3d 1326, 1331, 49 USPQ2d 1001, 1006 (Fed.Cir.1998). We hold that this is so as much in a section 146 action as on review of the judgment in an infringement suit.



[6][7] The dispute here focuses on the combinability of the prior art. When an obviousness determination is based on multiple prior art references, there must be a showing of some "teaching, suggestion, or reason" to combine the references. *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573, 1579, 42 USPQ2d 1378, 1383 (Fed.Cir.1997) (also noting that the "absence of such a suggestion to combine is dispositive in an obviousness determination"). Whether motivation to combine the references was shown we hold a question of fact. See *In re Dembiczak*, 175 F.3d 994, 1000, 50 USPQ2d 1614, 1617 (Fed.Cir.1999) ("[P]articular factual findings regarding the suggestion, teaching, or motivation to combine serve a number of important purposes ....") (emphasis added); *Monarch Knitting*, 139 F.3d at 881-83, 886, 45 USPQ2d at 1982, 1985 (treating motivation to combine issue as part of the scope and content of the prior art and holding that genuine issues of fact existed as to whether one of ordinary skill in the art would have been motivated to combine the references in question).

[8][9] Evidence of a suggestion, teaching, or motivation to combine prior art references may flow, inter alia, from the references themselves, the knowledge of one of ordinary skill in the art, or from the nature of the problem to be solved. See *Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617. Although a reference need not expressly teach that the disclosure contained therein should be combined with another, see *Motorola, Inc. v. Interdigital Tech. Corp.*, 121 F.3d 1461, 1472, 43 USPQ2d 1481, 1489 (Fed.Cir.1997), [FN6] the showing of \*1349 combinability, in whatever form, must nevertheless be "clear and particular." *Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617.

FN6. Wang correctly points out that the district court misstated our case law on the test for the "motivation to combine" issue when it stated that "there must have been some explicit teaching or suggestion in the art to motivate one of even ordinary skill to combine such elements so as to create the same invention." *Winner*, 11 F.Supp.2d at 24, 48 USPQ2d at 1144 (emphasis added). However, this misstatement could not have affected its analysis because its finding of a lack of a motivation to combine was based on "teaching away" and the nature of the problem confronting one of ordinary skill in the art, not what a reference failed to explicitly disclose. The district court also stated the law on this issue correctly in

other portions of the opinion, so this one isolated misstatement hardly shows that the district court misunderstood the law.

B.

[10] Like the district court's opinion, the arguments of both parties on appeal focus on whether one of ordinary skill would have been motivated to combine the four references. The key references at issue were *Johnson*, which discloses virtually all aspects of the invention claimed in the '047 patent except ratcheting, and *Moore*, which did disclose a self-locking ratcheting mechanism. [FN7] If there was no motivation or suggestion to combine *Johnson* with the ratcheting mechanism of *Moore*, one of ordinary skill in the art would not have viewed the invention of the '047 patent as obvious. See *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed.Cir.1998); *Gambro Lundia AB*, 110 F.3d at 1579, 42 USPQ2d at 1383 ("The absence of such a suggestion to combine is dispositive in an obviousness determination.").

FN7. *WuROC*, which disclosed a chamber capable of accepting either a dead-bolt or a ratcheting mechanism, may have informed one of ordinary skill in the art that both mechanisms would work, but it did not specifically disclose any such mechanisms and did not suggest that one should be replaced with the other. *Grimaldi* disclosed a rod and pawl design that was an anti-theft device attached to the clutch rather than a steering wheel. The district court did not clearly err in finding that "*WuROC* and *Grimaldi* in and of themselves would certainly not provide much guidance as to how to construct the *Wu* '047 device" and that if *Johnson* was not combined "with some form of a ratchet mechanism, then the fact that *Wu* '047 may have borrowed some elements from *WuROC* and *Grimaldi* becomes irrelevant." *Winner*, 11 F.Supp.2d at 24, 48 USPQ2d at 1144.

Wang argues that the prior art should be combinable merely because the Board properly found that the relevant field was very broad and included lock design art in general, and all of the prior art here was clearly within that field. Wang further argues that *Moore* is combinable with *Johnson* because they both deal with locking steering wheels, even though *Moore*'s ratcheting mechanism is possibly not as strong or as tamper resistant as the dead-bolt mechanism of *Johnson*, partly because the grooves of the ratcheting mechanism are at least

somewhat exposed.

[11] The district court found that there was no motivation to combine Johnson with the ratcheting mechanism of Moore because (1) there was no apparent disadvantage to the dead-bolt mechanism of Johnson, and therefore the motivation to combine would not stem from the "nature of the problem" facing one of ordinary skill in the art, because no "problem" was perceived; and (2) Johnson's written description taught away from the use of Moore. See *Winner*, 11 F.Supp.2d at 23, 48 USPQ2d at 1143-44. "What a reference teaches and whether it teaches toward or away from the claimed invention are questions of fact." *In re Bell*, 991 F.2d at 784, 26 USPQ2d at 1531.

First, although there was conflicting evidence before the district court on whether one would see the trade-off between using a dead-bolt and using a ratcheting mechanism and conclude that the more secure dead-bolt should be replaced with the more convenient ratcheting mechanism, the district court did not clearly err in finding that one of ordinary skill in the art would not have reasonably elected trading the benefit of security for that of convenience. Trade-offs often concern what is feasible, not what is, on balance, desirable. Motivation to combine requires the latter. [FN8]

FN8. The fact that the motivating benefit comes at the expense of another benefit, however, should not nullify its use as a basis to modify the disclosure of one reference with the teachings of another. Instead, the benefits, both lost and gained, should be weighed against one another.

[12] Second, if Johnson did in fact teach away from Moore, then that finding \*1350 alone can defeat Wang's obviousness claim. See *Gambro Lundia AB*, 110 F.3d at 1579, 42 USPQ2d at 1383. A "reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant." *In re Gurley*, 27 F.3d 551, 553, 31 USPQ2d 1130, 1131 (Fed.Cir.1994).

The passage of Johnson relied on by the district court and *Winner* includes the following:

Another problem with such devices is that they appear susceptible to being overcome by physical force or manipulation. The locking mechanisms of [Moore] and Mitchell et al U.S. Pat. No.

4,103,524 are exposed, and include pry points thereabout in which a crowbar may be inserted in an attempt to overcome such mechanism. Irrespective of whether such device can be overcome by physical manipulation, they present prospective thieves with the appearance of being breakable.

Johnson, col. 1, lines 38-48. Because the Mitchell reference cited in the quote above actually does not utilize a ratcheting mechanism, Wang argues that Johnson does not teach away from using ratcheting mechanisms; rather, it was merely distinguishing prior art devices on the basis that unlike Johnson they had exposed mechanisms. However, that fact does not undermine the district court's finding that Johnson did teach away from the ratcheting mechanism of Moore which does have exposed grooves. While we regard this as a close factual issue, we hold that the district court did not clearly err in finding that Johnson taught away from Moore, and therefore was not shown to be combinable with Moore. Because the district court did not clearly err in finding that one of ordinary skill would not be motivated to combine Johnson and Moore, the district court correctly concluded that Wang did not establish a prima facie case of obviousness by clear and convincing evidence. See *In re Dance*, 160 F.3d at 1343, 48 USPQ2d at 1637.

[13] If Wang had succeeded in establishing a prima facie case of obviousness based on the first three obviousness factors, the burden of production would have shifted to *Winner*. See *In re Huang*, 100 F.3d 135, 139, 40 USPQ2d 1685, 1689 (Fed.Cir.1996); *Burlington Indus.*, 822 F.2d at 1582-83, 3 USPQ2d at 1437-38 (reviewing a section 145 decision and holding that district court correctly concluded that applicant had successfully rebutted Commissioner's prima facie case of obviousness). Relevant to that inquiry would have been such objective indicia of non-obviousness as the evidence of commercial success submitted by *Winner*. See *id.* Because Wang failed to establish a prima facie case of obviousness, however, *Winner* was not required to establish commercial success. Thus, we need not review the district court's finding that commercial success was established.

[14] Assuming, *arguendo*, prima facie proof of obviousness, we do not believe the district court clearly erred in finding commercial success or that it erred in concluding that it overcame the other

Graham factors. It is presumed that Winner established a nexus between its commercial sales of the Super Club, the Club GL and Ultra Club and the patented features because they embody the disclosure of the '047 improvement patent. *J.T. Eaton & Co. v. Atlantic Paste & Glue Co.*, 106 F.3d 1563, 1571, 41 USPQ2d 1641, 1647 (Fed.Cir.1997) ("When a patentee can demonstrate commercial success, usually shown by significant sales in a relevant market, and that the successful product is the invention disclosed and claimed in the patent, it is presumed that the commercial success is due to the patented invention."). Moreover, the survey introduced at the district court by Winner established that a statistically significant percentage of customers viewed the self-locking ratcheting mechanism of the '047 patent as being of more value to them, and reported that the self-locking ratchet was the very reason they purchased the device, as opposed to \*1351 those requiring key-locking, and was the reason they were willing to pay more for such a lock than for one without it, such as the original Club. When such evidence was introduced, it became Wang's burden to show that it should not be given weight. See *id.* ("If a patentee makes the requisite showing of nexus between commercial success and the patented invention, the burden shifts to the challenger to prove that the commercial success is instead due to other factors extraneous to the patented invention, such as advertising or superior workmanship."); *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1394, 7 USPQ2d 1222, 1227 (Fed.Cir.1988) ("A patentee is not required to prove as part of its *prima facie* case that the commercial success of the patented invention is not due to factors other than the patented invention."). Given the evidence before the district court, it did not clearly err in finding that the survey showed the nexus between the patented features, especially the keyless self-locking ratcheting mechanism, of the Super Club line of products and the reasons the consumers bought the products. Nor did Wang's evidence overcome the proof of nexus.

### III. EVIDENTIARY ISSUES

[15] A district court's decision to admit or exclude evidence at trial is reviewed for abuse of discretion. See *Conservolite*, 21 F.3d at 1103, 30 USPQ2d at 1630 (Fed.Cir.1994). Wang argues that the district

court abused its discretion by allowing Winner to present (1) late-disclosed witnesses and (2) documents and testimony pertaining to the nexus required to show commercial success, namely a survey and foundational witnesses for the survey. Wang admits that the commercial success issue was raised before the Board but argues that the subsidiary nexus issue was not, and therefore Winner could not raise the issue before the district court, as it must be deemed waived.

Winner points out that Wang never even identifies which witnesses should not have been allowed to testify as "late-disclosed." With respect to the evidence of commercial success, Winner argues that the nexus evidence was clearly admissible because commercial success was at issue before the Board and, therefore by implication, the nexus issue was as well.

[16] We agree with Winner that the district court did not abuse its discretion in allowing allegedly late-disclosed witnesses to testify. Such witnesses were never even identified by Wang in his opening brief, and, after Winner pointed this out in its response brief, Wang still failed to identify the witnesses in his reply brief. Under such circumstances, we will not search the record on the chance of discovering which witnesses Wang was complaining of and then determine whether the district court abused its discretion. Thus, whichever witnesses Wang was alluding to, admission of their testimony cannot be said to be an abuse of discretion based on the vague arguments made by Wang on appeal.

[17] We also agree with Winner that the district court did not abuse its discretion in admitting the new testimony and survey report regarding the nexus between commercial success and the patentably distinct feature of the claimed invention. Wang's argument, based on a distinction between the issues of commercial success and nexus, is flawed. The evidence showing a nexus between large sales and the patentable features of the invention of the '047 improvement patent is at least relevant to the issue of commercial success before the Board. See *Estee Lauder*, 129 F.3d at 592, 44 USPQ2d at 1613 ("[D]istrict court did not abuse its discretion in allowing *Estee Lauder* to introduce evidence of the [tests not before the Board] insofar as this evidence was relevant to its reduction to

practice." (emphasis added)). Indeed, establishing such a nexus is required in order to establish commercial success. See *Gambro Lundia*, 110 F.3d at 1579, 42 USPQ2d at 1384 ("Of course, \*1352 the record must show a sufficient nexus between this commercial success and the patented invention"). Thus, here raising the commercial success issue necessarily raised the nexus issue as well. Accordingly, the district court did not abuse its discretion by admitting the testimony and documents relating to the nexus required to show commercial success.

#### IV. MOTION TO TRANSFER

[18] A district court may transfer an action to another district court for the "convenience of parties and witnesses, in the interest of justice." 28 U.S.C. § 1404(a) (1994). Our review of the district court's denial of Wang's motion to transfer, as a procedural matter, is governed by the law of the regional circuit in which it sits, here the United States Court of Appeals for the District of Columbia Circuit. See *Stewart Org., Inc. v. Ricoh Corp.*, 487 U.S. 22, 32, 108 S.Ct. 2239, 101 L.Ed.2d 22 (1988) (classifying section 1404(a) as a procedural rule); *Regents of the Univ. of Cal. v. Eli Lilly and Co.*, 119 F.3d 1559, 1565, 43 USPQ2d 1398, 1403 (Fed.Cir.1997) (applying regional circuit law). In that circuit, the burden of persuasion on the transfer issue was on Wang, and the district court's denial of Wang's motion is reviewed for an abuse of discretion. See *Securities and Exchange Comm'n v. Savoy Indus., Inc.*, 587 F.2d 1149, 1154 (D.C.Cir.1978).

[19] Wang argues that the district court should have granted his motion to transfer this action to the District Court for the Central District of California, where several other cases have been stayed pending the outcome of the interference and this action because to do so would be convenient to the parties and in the interests of justice. Winner argues, however, that it was just as convenient for the parties to litigate in Washington, D.C. as in California, and that the interests of justice actually favored litigation in Washington, D.C. because this

aspect of the litigation will be resolved years before it would have been if the motion to transfer were granted.

We discern no abuse of discretion in the district court's denial of Wang's motion to transfer. Even though there are several related pending cases in the Central District of California, it is not clear that it would be a more convenient location for the parties to litigate. Persons scheduled to testify at trial for the parties lived in Pennsylvania; the experts lived in Connecticut, Virginia, and California; and the attorneys were from Virginia and New York. With parties, witnesses, and attorneys coming from such varied locations, several of which are closer to Washington, D.C. than California, it could not easily be said that it would be more convenient to try the case in the Central District of California. In addition, the interests of judicial economy were well served because the section 146 action was tried and result obtained in just six months after the motion to transfer was denied--presumably much more quickly than would have been the case if this action were transferred to the Central District of California where several other cases were pending. See *Savoy Indus.*, 587 F.2d at 1156 (considering the delay that would have been encountered if the motion to transfer were granted as a factor weighing in favor of denying the motion). Under such circumstances, the district court did not abuse its discretion in denying Wang's motion to transfer.

#### V. CONCLUSION

The district court did not clearly err in its findings of fact with respect to its obviousness analysis and did not err in concluding that the invention of the '047 patent would not have been obvious. In addition, the district court did not abuse its discretion in admitting testimony and documents or in refusing to transfer the \*1353 case. Accordingly, the judgment of the district court is

AFFIRMED.

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